

20ti-collis - Wry Neck.

Deformity affects head.

- bent to one side + rotated other side.

Rt. 20ti - rt. bend - lt. rotation:  
collis.

Causes.

1) Congenital deformity, (rare)

- Acquired at birth.

- head pulled to one side at birth.

- blood supply to cramped muscle poor - muscle contracts + pulls head down later on.

tumor - stern - ~~obsc~~ mastoid tumor.

2) Ruptured muscle fibres.

- on stretched side of stern - diaphragm - mastoid.

- fibrous band forms at rupture.

Congenital - skull misformed.

3) Unequal hearing or insight.

4) Rheumatic - stiff neck. frequent attacks.

5) Bad habits - lateral tilt.

6) Spasmodic -

Clonic - S.C.M. - goes into spasm.  
head pulls over.

Tonic - S.C.M. - spasm  
head stays there.

Spinal accessory nerve.



## Congenital + birth treatment.

- 1) If condition descends & is a tumor -  
Passive stretching 3 times a day.  
Regular - torti-collis rarely develops.
- 2) Passive stretchings to overcome deformity -  
even if tumor gone.

## After 5-6 yrs. -

- 1) Treatment severe - subcutaneous tenotomy.  
Fibres of S.C. M. severed.
- 2) Head put in plaster of Paris in  
correct position. - 1 month.
- 3) Remedial exercises to mobilize head  
& refine eyesight.
- 4) Passive stretching.

## Sanger's head sling.

- strap under chin + occipital bone.
- suspended

## More severe form.

- 1) Operation - sever S.C. M. + mastoid  
- clonicular head.
- 2) Plaster of Paris - overcorrection - 6 weeks.
- 3) Stretching + reeducation.

## Older person. 15-19 yrs.

- 1) Left in deformity.
  - nerves, muscles + arteries grown  
to that position.
  - face does not develop  
symmetrically.



## Short structure.

- Stern - C - mastoid. shortens
- rotation.

Muscles - Upper fibres of Trapezius shorten.  
Shorten - Cervical fascia shorten.  
- Deep short neck muscles.

Fibres of same structures on opposite side of neck lengthen.

Joints of cervical vertebrae stiffen.  
- limit movement.

## Principles of treatment.

- Mobilize cervical spine
- lengthen contracted structures.
- Shorten cervical structures by working in inner range.
- Re-educate patient.

## Exercises to mobilize spine. (passive)

- 1) - in bk. lying.
- 2) - head rollings in a big circle.

3) Cross leg sitt. pull head up.  
Surgery's head sling - pull structures up.

## Exercises - Table.

- mainly in sitt. in front of mirror.
- single side exercise.
- progression - double side - back to mirror.

## Rt. T - C.

- Lt. hands, concentric, inner range.
- Rd. hands Lt. against resistance.
- Rd. hands Rt. against resistance, eccentric.

- Progress to standing.



## Flat back.

- lessening of curves of spine usually in lumbar region. (lumbar hypophoria)

## Causes.

- 1) Wrong conception of posture.
- 2) Lying on back in bed for long periods.
- 3) Organs are misplaced.
  - Visceroptosis (drooping).
  - lumbar curve acts as shelf.
  - pain in lumbar region.

## Aims.

- 1) To strengthen erector spinae in back.
  - Prone leg - hd. + hl. rais 'g.
  - alt. hl. rais 'g.
  - Barry 'g - swing, swing, back + hold.



## Foot Deformities.

- Valgus Varus - deformity - forefoot inward.
- Valgus Valgus - <sup>foot</sup>
- Equinus - heel up + toe pointed.
- Calcaneus - patient walks on heel - toes up.
- Equinus Varus - toe - foot in.
- Calcaneus Valgus - heel - foot out.

## Causes.

### A. Commonly congenital.

Valgus & Equinus Varus  
- bi-lateral + unilateral

### B. Acquired.

Paralysis Tib. ant. + post.

Infantile Ant. Polio - myelitis.

Injury to peripheral nerves  
neuritis - alcohol, lead, arsenic

Spastic Paralysis.

- anti-gravity muscles paralysis  
Equinus Varus.

- invertors stronger than evertors.

Injury to foot - crushing of bones  
scar tissue.

## Changes.

<sup>Equinus</sup>  
Valgus Varus.

- dorsi - flexors + peronei - stretched + weak.
- calf muscles (T.A.) + invertors  
strong + short.
- lig. on outer side of foot stretched  
lig. on inner side shortened.



Hypertrophy - bones grow too big.

Atrophy - bones are small.

Congenital - bones incorrect.

- into lower leg twists in.

Treatment 2-3 yr.

1) - Manipulation 3 times a day.

- Foot held in eversion & dorsi-flexion  
uncorrected position - adhesive strapping.

2) Plaster of Paris 1 month. change.

- knee to foot.

- then re-education exercises.

Exercises - work stretched muscles

- eversion + dorsi-flexion

- Tendo Achilles stretched.

- Special shoes, iron brace holds  
foot in corrected position.

Surgery - T.A. lengthened

nerve to adductors cut.

Exercises Equinus Feet.

Stretch Tendo Achilles - hang st. pos.

- gastrocnemius.

2) Knees bend form. heels flat.

3) Walk for st. heel dropping + bouncing

4) Balance bench hooked into stiff  
bars, Walk upright, heels  
flat on bench.



### Stretch Invertors

- 1) Walk on floor, on inside of foot.  
Also tightens invertors.
- 2) long sitt. foot ~~invertor~~ <sup>invertor</sup> exercises.
- 3) Roller skating

Callosities Calcaneus Talus. <sup>the up</sup> foot out. ~~black~~

Consequential

Acquired

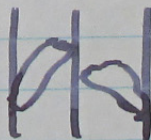
Paralysis - Strychnine, Solens

Overcontracted - Peronei.

Develop invertors + plantar - flexors.  
Plantar flexors.

- 1) Walking on toes & ballet shoes.
- Invertors

- 1) Foot rolling in + up.
- 2) Foot inversion (sneaking leaves)
- 3) Big toe bringing up leg.
- 4) Toe line - big toe on centre line  
heel on outer line.





## Toe Deformities.

### Hallux Valgus.

Big toe deviates <sup>towards</sup> ~~from~~ mid line of foot - on top or under toes.

Causes - 1) Short, pointed shoes.

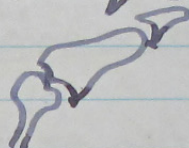
2) Pressure on big joint of foot.

Bursa appears, thickens & inflame - Bunion.

Changes 1) Soft structures on inside stretched.

2) Head of metatarsal enlarges on inside.

3) Abductor stretched.



### Signs & Symptoms

Pain - bad gait.

### Treatment.

1) Teach child to use abductor Hallux.  
Put foot on cardboard covered with talcum.

Big toe inserted.

2) Special stockings - big toe separate.

3) Toe post in shoe.

4) Toe tied to inside & away from other toes.



## Claw Toes.

Flexion - inter-phalangeal joint.

Extension - metatarsal - phalangeal jt.

In conjunction<sup>1)</sup> with dropped long. arch.

Opposite to flat foot

Pes Canis - very high metatarsal arch.

<sup>2)</sup> In cases of paralysis in lower leg.

3) - affects lumbricals & interossea

4) - collapse at 1<sup>st</sup> & 2<sup>nd</sup> jts.

5) - toes do reach ground - lack balance.

## Treatment.

1) Re-education of interossea & lumbricals.

Ex 1) Claming -

2) Foot sole resting on chair, toes over edge of table, pull toe down towards floor, after pulling them out.

3) Insoles.

4) Tie each toe down separately.

## Constipation.

Incomplete evacuation of bowels.

Stomach empty 1-3 hrs.

Large intestine 5-7 hrs. Sigmoid & a. colon.

2 hr. to pass up ascending colon.

12-20 hr. to rectum.

## Causes.

1) Obstructive causes - mechanical  
tumors, growths.



- 2) adhesions.
- 4) scar tissue.

### Sedentary life + lack of exercise.

- 1) - lowering of tone of alimentary tract musculature + abdominal muscles.
- 2) - bad habits - neglecting impulse.
- 3) - error of diet - insufficient roughage.  
- insufficient bulk + liquid.
- 4) - lowering of tone of abdominal muscles.  
- after abdominal operations or illness with fever.
- 5) - disorder of nervous supply of colon - spastic colon.

### Treatment.

- 1) Find cause - don't treat obstructive cases.
- 2) Make patient have good habits -  
regular elimination time.
- 3) Regulation of patient's diet - water.  
in morning + before meals - 4 pts.  
of liquid a day.  
Fruit + green vegetables.  
Well-balanced diet.

### By exercise. Aims.

- 1) Tone up abdominals + alimentary tract.  
- water - abdominal pressure,  
diminishes blood supply to  
alimentary tract.





The **Margaret Eaton School Digital Collection** is a not-for-profit resource created in 2014-2015 to assist scholars, researchers, educators, and students to discover the Margaret Eaton School archives housed in the Peter Turkstra Library at Redeemer University College. Copyright of the digital images is the property of Redeemer University College, Ancaster, Canada and the images may not be copied or emailed to multiple sites without the copyright holder's express written permission. However, users may print, download, or email digital images for individual non-commercial use. To learn more about this project or to search the digital collection, go to <http://libguides.redeemer.ca/mes>.